



Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at <http://about.jstor.org/participate-jstor/individuals/early-journal-content>.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

Atratus versus Megalonyx

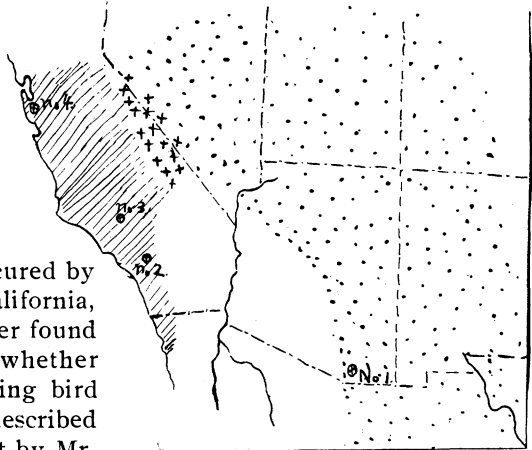
BY HARRY S. SWARTH

THAT the accepted arrangement of the towhees of the southwest, of the *Pipilo maculatus* group, is an arbitrary and artificial one, is a fact that is evident to anyone who studies the matter at all carefully. I refer particularly to *P. m. megalonyx* and *P. m. atratus*, as at present distinguished; *atratus* being confined to the coast district of southern California from the Sierra San Fernando, and Sierra San Gabriel, south into northern southern California, while *megalonyx* occupies the extensive territory lying between the Pacific Ocean and western Texas and from central California and Wyoming, south into northern Mexico. Now in the region outlined above I believe that two forms of *Pipilo maculatus* may be distinguished, but the dividing line should not be drawn as it is at present. That *atratus* is simply a synonym of *megalonyx* is, I believe, a demonstrable fact. That such is the case is by no means a new idea with me, for Pacific coast ornithologists have generally refused to recognize the race (see Grinnell, Condor IV, 1902, 23; Check list of California Birds, 58), but it is only lately that I have been able to get together material to properly demonstrate the facts of the case.

The type of *Pipilo megalonyx* was secured by Xantus at Fort Tejon, southern California, and as this towhee is resident wherever found in California, it makes little difference whether this particular specimen was a breeding bird or not. *Pipilo maculatus atratus* was described by Mr. Ridgway from specimens shot by Mr. Grinnell in the vicinity of Pasadena, some sixty miles distant from Fort Tejon and in the same faunal area. The principal distinguishing characteristic is the excessively dark coloration, with glossy black rump, uniform with the back. Of Pasadena specimens there was an abundant supply to be had, but skins from the type locality of *megalonyx* appeared, until recently, to be entirely lacking in California collections. In May, 1904, I made a short trip into the mountains southwest of Fort Tejon, and secured seven towhees at a spot about twelve miles from the fort, while a few weeks later Mr. Grinnell secured additional specimens at Mount Pinos, which I now have before me.

In all I have examined in this connection about one hundred and fifty specimens, from the following localities: Los Angeles County (mostly Pasadena specimens) 75; Mt. Pinos and Fort Tejon, 13; Piute Mountains, Cal., 1; Monterey, Cal., 5; San Francisco Bay region (*P. m. falcifer*), 15; Huachuca Mountains, Arizona, 20; scattered localities in Arizona and New Mexico, 9; besides specimens of *P. m. arcticus*.

Taking up the series from Los Angeles and Pasadena first, it appears that the



LINED AREA, *P. M. MEGALONYX*; DOTTED AREA, *P. M. MONTANUS*; CROSSES, PROBABLE AREA OF INTERGRADATION.

No. 1. Huachuca Mountains., type locality of *P. m. montanus*.

No. 2. Pasadena, type locality of *P. m. atratus*.

No. 3. Fort Tejon, type locality of *P. m. megalonyx*.

No. 4. Palo Alto, type locality of *P. m. falcifer*.

principal characteristic ascribed to *atratus*, excessively dark coloration, with, in the male, glossy black rump, concolor with the back, is fairly constant, but the black rump is characteristic only of fully adult birds, those in, at least their second year. Mr. Grinnell informs me that when he sent the specimens from which *atratus* was described, he selected, very naturally, the darkest colored, as the finest specimens, thus probably (though most innocently) misleading Mr. Ridgway as to the value of the characteristics he ascribed to the race. In a series collected in the vicinity of Pasadena by Mr. Grinnell he has very carefully marked each one of the fall and winter birds, all in fact in which the age can be determined by the condition of the skull, whether adult or immature, and in every case the "young of the year" has the rump grayish, very much lighter than the old males, which are glossy black over the whole back and rump. The gray-rumped birds are frequently taken in the spring when it is impossible to ascertain the age, so easily determined in the fall and winter, but the inference is that they are birds of the previous year, and that two years at least are required to obtain the full plumage. I have not seen the type of *Pipilo megalonyx* but should think it very probable that it was a bird in this stage of plumage.

Of the thirteen Mt. Pinos specimens, two juvenile males collected by Mr. Grinnell are marked "Fort Tejon," while two pair of adults are labeled, "Mt. Pinos." The seven specimens (five males and two females) taken by myself were shot in the mountains southwest of Mt. Pinos, probably ten or twelve miles from Fort Tejon. This material from the type locality of *megalonyx* is quite sufficient to admit of intelligent comparison with the series from Los Angeles and Pasadena, and it may be confidently stated that there is absolutely no difference between them. Of the seven males, six have the rump as black as any of the more southern birds, and there is no difference in size and proportions.

The single male bird from the Piute Mountains, Kern Co., California (north-east of Fort Tejon) is in fresh fall plumage (Sept. 9), is apparently an old bird, and has the back and rump as glossy black as any Pasadena specimen in the series. In the collection of the Field Columbian Museum of Chicago there is an interesting series of five birds (three males and five females) shot at Monterey, California, during February, 1903. Two of the three males have the back and rump (except the usual white markings on the scapulars) uniform glossy black, and any of the five can be matched exactly by Pasadena specimens.

In the series from Palo Alto (*Pipilo maculatus falcifer* McGregor) there are, unfortunately, but two females, and those in such poor shape as to be nearly worthless for comparison. The males are very slightly distinguished from *megalonyx*. In size they average a trifle smaller, and in color rather darker, evidently approaching *oregonus*, but it is questionable whether the differences are sufficiently marked to be worthy of recognition by name.

Turning now to the specimens from east of the Colorado Desert, an altogether different style of coloration is encountered. The birds are generally paler colored, with the white areas more extensive, and, in all the males examined, the rump is grayish, decidedly lighter than the back. In the light of the material examined it seems evident that while *atratus* is indistinguishable from *megalonyx*, the bird found east of the Colorado Desert, occupying the southern Rocky Mountain region, is a different, and hitherto unnamed, variety. For this race I propose the name of

***Pipilo maculatus montanus* new subspecies.**

SUBSPECIFIC CHARACTERS—Similar to *Pipilo maculatus megalonyx* but generally lighter

colored, and with white markings on tail, wing coverts and scapulars, more extensive; rump grayish; wing and tail longer than in *megalonyx*.

TYPES—♂ adult; no. 3972, coll. H. S. S.; Miller Canyon, Huachuca Mountains, Arizona; May 20, 1903; collected by H. S. Swarth.

DESCRIPTION—Head and neck all around, black; lower breast and abdomen, white; sides, chestnut, paler than in *megalonyx*, with a few partly concealed black markings on the edge, between the chestnut of the sides and the white belly; under tail coverts, pale fulvous. Wings, black; greater and middle coverts broadly tipped with white, forming two bars across wing; outer web of scapulars, white, except for an almost imperceptible edging of black; interscapulars with white spot on outer web; size of spots decreasing toward middle of back, but very few feathers on the back not showing some white markings. Rump, grayish, in marked contrast to the back. Three outer tail feathers tipped with white; lateral ones with outer web white for about terminal third. Length 224. ^aAlar expanse 290. ^aWing 91. Tail 109. White spot on lateral tail feathers 35.

♀ adult; no. 3875, coll. H. S. S.; Miller Canyon, Huachuca Mountains, Arizona; May 5, 1903; collected by H. S. Swarth.

DESCRIPTION—Generally similar to the male, but black of head, neck, back, etc., paler, more slaty. Chestnut of sides, paler. As compared with female *megalonyx* the chestnut sides are appreciably paler; white areas on wings, scapulars, etc., much more extensive; and the interscapulars are nearly all with white markings on the outer web. Length 215. ^aAlar expanse 270. ^aWing 86. Tail 101. White spot on lateral tail feather 27.

YOUNG—The only two juveniles of *montanus* in my possession are not sexed, but compared with juveniles of *megalonyx* of both sexes, from Fort Tejon and Pasadena, all in the streaked plumage, they are appreciably paler, with wing bars broader, and white spot on tip of lateral tail feather, much longer.

MEASUREMENTS—

		Wing	Tail	White spot on outer tail feather
50 ♂♂	Los Angeles Co., Cal.	86.2	97.1	24.
7 ♂♂	Mt. Pinos, Cal.	85.4	97.7	25.6
3 ♂♂	Monterey, Cal.	83.6	96.6	23.3
10 ♂♂	Palo Alto, Cal. (<i>P. m. falcifer</i>)	83.8	93.1	21.4
17 ♂♂	S. Arizona and New Mexico (<i>P. m. montanus</i>)	92.2	106.5	31.2
25 ♀♀	Los Angeles Co., Cal.	81.3	91.6	22.1
4 ♀♀	Mt. Pinos, Cal.	81.2	91.2	20.5
2 ♀♀	Monterey, Cal.	80.5	96.5	19.
9 ♀♀	Arizona and New Mexico (<i>P. m. montanus</i>)	84.6	97.2	28.6

RANGE—The higher mountains of eastern Arizona, eastern California? central and southern Nevada and Utah, western Colorado and New Mexico, south into northern Mexico. The westernmost extension of the species in Arizona might be indicated by a line drawn from the Santa Rita to the Hualapai Mountains. Specimens of *montanus* were examined from the following localities: Huachuca Mountains and Fort Verde, Arizona; Rincon and Fort Union, New Mexico; Fort Loveland, Colorado; Provo, Utah; and West Minaca, Chihuahua, Mexico.

Besides the easily appreciable difference in color and proportion between *megalonyx* and *montanus*, there is a remarkable difference in the habits of the two races. *Megalonyx* is resident throughout its range in California, where it is found from the sea level well up into the mountains; "up to the limit of the undergrowth" (Grinnell, Pub. No. 1. Pasadena Acad. Sci., 40); "observed only below 6,500 feet" on Mt. Pinos (Grinnell, Auk, XXII, 1905, 389). It is probably more abundant in the willow thickets of the lowlands and along the streams in the lower foothills than anywhere else, and is strictly resident, the only migratory movement whatever being a partial descent from the higher parts of its range in midwinter.

Montanus is found in the mountains only, of Arizona, New Mexico, etc., where it is resident; and I have never seen it below 5,000 and but seldom below 5,500 feet. In the ranges I visited I found it equally distributed from 5,500 to 10,000 feet, and even when the snow was deep on the ground the birds did not descend into the foothills. I can find no record of the occurrence of this bird anywhere in Arizona or New Mexico except in the mountains, nor does it seem to have ever

^a Measurements from freshly killed specimen in millimeters.

been taken along the lower Colorado River; and the spurred towhee is not recorded from any of the desert regions of southern California, so that in the southernmost extension of their ranges, at least, *megalonyx* and *montanus* are separated by some three hundred miles of desert, in which neither form is found.

It may be of some interest to briefly glance over the distinguishing features of the various series of birds examined. Starting from the east we find first at the eastern base of the Rockies *arcticus*, with olivaceous back, extensively streaked with white. Going southward to New Mexico we encounter *montanus*, considerably darker, but with gray rump and with white streaks on back still quite extensive. I may say here that three examples of *montanus* from Fort Loveland, Colorado, have, in the character of their markings, a decided leaning toward *arcticus*. Crossing the desert to southern California, we find a still darker bird (*megalonyx*), with black rump and white markings on interscapulars reduced to a few spots. As we go north along the coast the birds became still darker, grading through *falcifer* to the extremely dark *oregonus*. With the specimens I examined it was possible to form an almost unbroken chain, both as to color and geographically from the olivaceous *arcticus* to black *oregonus*.

In this connection it may also be of interest to speak of some aberrant markings that were encountered in some of the specimens examined. These took the form in several examples of *arcticus*, of faint rusty markings on the occiput. A male specimen of *megalonyx* has a small chestnut spot on the middle of the throat, while another has nearly the whole of the back grayish, the black of the head being nearly as sharply defined against the back as in *Junco oreganus*. This last may possibly be a case of faded feathers due to arrested moult, though the specimen was shot in December and was otherwise in good condition. Another male specimen of *megalonyx* has the chestnut on one side much paler than on the other.

I would like in conclusion to express my gratitude to Mr. Grinnell for the loan of a valuable series of specimens from Pasadena and from Fort Tejon; to Mr. F. S. Daggett for the loan of a large number of skins from various localities in Los Angeles County and from Palo Alto; and also to Dr. Dearborn of the Field Columbian Museum for the privilege of examining the specimens under his care.

Chicago, Illinois.

The American Crossbill in Montana

BY P. M. SILLOWAY

IN the summer of 1903 my attention was attracted by the unusual activity of the crossbill (*Loxia curvirostra minor*) in the Flathead forests. Late in June the adults became noticeable in their notes and movements, and in early July the subject was noted in my journal. On July 6, I made a record of the singing of the male as indicative of the fact that the birds were apparently enjoying a summer nuptial season; but somehow I had formed the conclusion that the crossbill nests only in late winter and early spring, and hence I was unusually blind to the real doings of the noisy chatterers in the tops of the tall conifers.

The regular call-note of the crossbill is a syllable sounding somewhat like the word "quit," generally uttered when the bird begins its flight from one station